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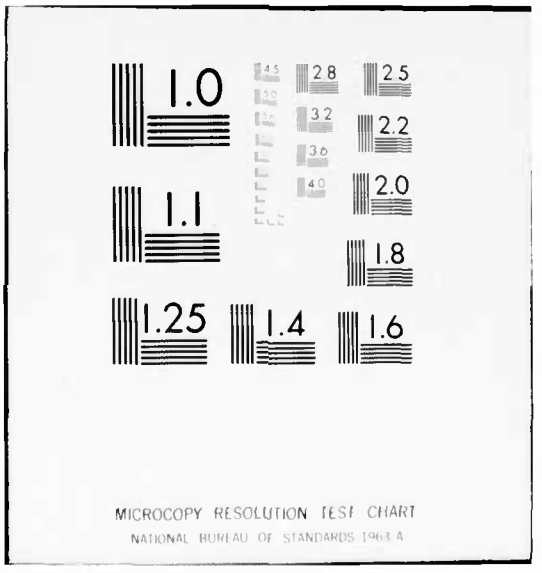
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AN EXAMINATION AND EVALUATION
STUDY REPORT
PMC 73-2

Francis A. Gridley
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AN EXAMINATION AND EVALUATION

An Executive Summary
of a
Study Report
by

Francis A. Gridley
GS-11 DAFC

November 1973

Defense Systems Management School
Program Management Course
Class 73-2
Fort Belvoir, Virginia 22060

EXECUTIVE SUMMARY

This study is an examination of five formal contractor reporting requirements which Department of Defense Program Managers use to assess the status of their program's progress. Department of Defense policy directives and instructions which authorize this reporting was examined as background for this study.

DODD 5000.19 "Policies for Management and Control of Department of Defense Information Requirements" dated 2 June 1971 and reprint with changes dated 1 June 1973, is the overall policy document for the flow of information within, from and to Department of Defense, and to perform objective reviews to prevent unauthorized or duplicative information flow.

Deputy Secretary Clements Memo "Request for Proposal/Contracts Requirements Review Boards" dated 17 July 1973 is the Department of Defense policy for managing the complete spectrum of contractual requirements for management systems, data reports, and documentation. This includes requirements for the military department to establish review boards to reduce the proliferation of information flow.

DODI 5010.12 "Management of Technical Data: dated 5 December 1968 is replaced by DODI 5010.29 "Acquisition of Data from Contractors" 29 November 1971 and its attendent regulation DOD 5010.29-R "Data Acquisition Management Program" dated 9 March 1973 (now in draft

form) are the instructions which deliniate the procedures for inclusion of data requirements reporting in program acquisition contracts.

The "Department of Defense Authorized Data List", TD-3 and its attendent manual of data item descriptions is the detailed content and format description requirements to the contractors.

Using the Department of Defense policy directives and instructions as a background a detailed analysis was made of the five contractor reporting requirements.

Contract Performance Plan	Army	DI-A-1017
Chart Milestone	Navy	DI-A-2007
Program Schedule	USAF	DI-A-3007
Program Milestones (Acquisition Phase)	USAF	DI-A-3009
Management and Performance Plan	USMC	DI-A-4503

Documents were compared for quantitative duplication, analyzed for internal redundancy and identification of unique requirements, and analysis of usage was made based upon Program Manager Review Questionnaires. The results were correlated with information received through interviews with Department of Defense personnel. Recommendations were based upon quantitative, qualitative analyses and iterations of the information collected.

SELECTED PROGRAM CONTROL
CONTRACTOR GENERATED REPORTS
AN EXAMINATION AND EVALUATION

STUDY REPORT

Presented to the Faculty

of the

Defense Systems Management School

in Partial Fulfillment of the

Program Management Course

Class 73-2

by

Francis A. Gridley
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November 1973

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11.	Major Fred Wynn	Faculty Advisor

CONTENTS

CHAPTER I

INTRODUCTION*

General

Historically, the Department of Defense has been striving to manage data and information, as it relates to the weapon system acquisition process. We have experienced, in the last two decades, a technological explosion of data and information. This coupled with a parallel, rapid advancement of computer technology, is creating a proliferation of data which is asymptotic to the total weapon system management effort.

As the complexity of the weapon system increased, so also did the data which related to it. The necessity for information, for decision making, became the driving factor that created the mass of data and information which we now associate with our managment efforts.

There is no reason to believe that the pace of technology will diminish or that the requirement for defense weapon systems will decline. We will continue to need management information systems. The question of what is needed and how we apply these management information systems is constantly with us. We have in the past, fallen short of our goals to minimize data and information and maximize its use.

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*ABSTAINER

This study represents the views, conclusions and recommendations of the author and does not necessarily reflect the official opinion of the Defense Systems Management School nor the Department of Defense.

Purpose of the Study

The purpose of this study is to examine and evaluate selected program control contractor generated reports. This study will concentrate upon the management information which the program manager uses. Management information is vital to successful reporting of the progress of the weapon system. The program manager's selection and tailoring of this information is essential to portray the weapon system status. Primary emphasis will be placed on the methods of contractor reporting which forms the base of the program managers information system.

Methodology and Scope

The methodology used in this study included library research. Formal interviews and discussions were conducted with Department of Defense representatives, both Comptroller and Installation and Logistics personnel. Informal discussions with staff personnel of the Defense Systems Management School, and with students of PMC Class 73-2 were conducted. In addition, data derived from a questionnaire, which was forwarded to selected Multi-Service Program Managers, was incorporated within the time constraint placed on this study.

Throughout the study emphasis is placed upon Department of Defense Directives and Instructions and their evolving nature in relation to the impact upon data and the management information systems.

Organization of the Study

This study will basically follow a descriptive analysis approach.

A review of the Department of Defense direction coupled with current information derived from interviews and selected program manager inputs, reveals that management of Department of Defense information and data is receiving more emphasis today than in the past. The literature also reveals that implementation and control has been a continuing concern.

Chapter II discusses the Department of Defense's historical efforts of the data acquisition process and its related impact on the weapon system acquisition effort. In Chapter III discussion centers upon the current constraints imposed by the Department of Defense concerning the design to cost philosophy. Chapter IV deals mainly with the relationship of management information systems and formal contractor data requirements. In Chapter V, a consideration of the program manager's tailoring efforts, to obtain pertinent contractual data for a particular program, is reviewed. Chapter VI is a brief summary of this report.

CHAPTER

HISTORICAL EFFORTS C

In the middle 1950's the Department forts to determine a method of identifyir curement of paper vs the procurement of h the so called Post-War period, data was tractors either as part of the overhead c ware cost.

Identification of what the governmer of a general statement and the contracto tional verbal clarification on the part

One of the early studies was conduc ment Institute titled "Reducing Contract LMI Project 6B." The Logistics Manage fold task assignment:

> "(1) An analysis of the present tec vices in controlling reporting requ contractors and (2) the development identification of, techniques to st

The study also revealed two general istrative and technical. There was som administrative reporting but little or n nical reporting. The findings and conc reports, controls upon reporting, the s

technical reporting, and the cost of contractor reporting.

After analysis of selected contractor reporting requirements, the Logistics Management Institute made four recommendations:

> #1 - "That the Army and the Navy initiate one time reviews of all on-going major procurement programs to identify and eliminate excessive reporting requirements, both administrative and technical." (4 : 20)
>
> #2 - "That the Army and the Navy intensify their consideration of establishing a formal review procedure, prior to contracting, of the technical reporting requirements contained in proposed procurements." (4 : 21)
>
> #3 - "That all the services devote necessary manpower resources to the task of identifying the relevant factors for determining an adequate level of technical reporting under the various methods of procurement and types of materials being procured, and that these factors, or guidelines, be made available for the use of personnel responsible for pre-contract reviews." (4 : 22)
>
> #4 - "That the Office of the Secretary of Defense take necessary action to assure that all service generated administrative reporting requirements upon defense contractors be cleared through that office; that responsibility for coordination of service reporting requirements remain within OSD; and, that the OSD assume a more active role as spokemen for Department of Defense reporting requirements." (4 : 23)

The Logistics Management Institute Study was completed in November 1962. The Office of the Secretary of Defense, the Department of Defense, and the Services were concerned with essentially the same problems. The Services were conducting continuous reviews, and with the Office of the Secretary of Defense emphasis, applicable Department of Defense Directives were issued. Department of Defense Directive 5100.6, "Department of Defense Technical Information" was issued on 31 December 1962. This was a

major attempt to identify and eliminate excessive reporting. The Armed Services Procurement Regulation, established by Department of Defense Directive 4105.30, was in being since 11 March 1959, but greater emphasis was required.

The evolutionary or revolutionary effort, depending upon one's point of view, was now emerging. Between 1960 and 1970 a multitude of Department of Defense Directives and Instructions were issued to singularily and collectively address the recommendations of the Logistics Management Institute Study.

However, this effort did not limit itself to the problems originally highlighted, but addressed the areas of logistics data and information, configuration management, technical manual management, work breakdown structure, standarization, management in general, training, personnel, ET AL.

Formal review procedures were established:

> "Prior to soliciting proposals or prior to contract award, or both, appointed technical data requirements review board(s) shall review for essentially the contractual data requirements, and estimated data prices, when applicable, as well as contract data clauses on all programs estimated to cost the government $1,000,000.00 or more, and on other programs where data requirements are significant. - - -In all instances, a thorough review of each data requirement is mandatory as well as a review of the consolidated (total) data requirement for each contract to insure no duplicate or unnecessary overlapping of data requirements exists." (12 : 566)

Historically, the efforts of the Department of Defense and the Services to identify and assign manpower, lags behind the effort to identify and assign responsibilities to the overall data management program. By the mid 1960's the Services, had established within their material commands a minimum of personnel to initiate the tasks iden-

tified in the original Department of Defense Instruction 5010.12 "Technical Data and Information' Determination of Requirements and Procurement of," 27 May 1964. This document was cancelled and replaced by an updated version 5 December 1968.

Concurrently the Office of the Secretary of Defense, through the Department of Defense Directive 7000.1, "Resources Management Systems of the Department of Defense," dated 22 August 1966 and subsequent Department of Defense instructions created the mechanisms for controlling the proliferation of requirements being levied upon defense contractors. Parallel to this management attention throughout the Department of Defense, in the late 50's and early 60's, we were experiencing an explosion in computer technology. The rapid advances in this technology alone was exerting pressure for mechanized reporting, simultaneously with the efforts to identify and control contractor reporting.

Within this arena the entire Department of Defense organization was confronted with a proliferation of directives and instructions, and a requirement to review contracts and the on-going contractual efforts in order to control generation of unnecessary data requirements; an explosion in computer technology and its pressures to mechanize and the necessity for the Office of the Secretary of Defense and the Department of Defense to control and prevent proliferation within and among the services. In the later 1960's a new approach was looming on the horizon - design to price.

CHAPTER III

DESIGN TO PRICE VERSUS DATA ACQUISITION COSTS

With the advent of apparent cost overruns on some of our major systems acquisitions the Department of Defense Staff and the entire Defense Establishment received severe, but in many cases, undue criticism from Congress, the Press and the General Public. This in turn created Congressional Investigations, a multitude of Press Articles censuring the Department of Defense's entire Weapon Systems Acquisition Process, and reports eminating from the Government Accounting Office. This reactionary effort intensified in the same fashion as the Department of Defense's reaction to the Logistics Management Institute Report. The early and middle 1960's produced a proliferation of department directives and instructions for controlling the entire Department's management practices. Due to the exposure of cost overruns, the Congress, the Press and the Government Accounting Office created a proliferation of information which contributed as much to general confusion as it did to its original purpose of exposure.

The natural response of the Department of Defense was to publish new and updated directives and instructions. From the evidence to date, this reaction took full advantage of the lessons learned in the 1960's. Policies and methods to improve the management of cost, schedule, and performance prediction and measurement were distributed.

Simultaneously with this effort, many of the previously issued directives and instructions were cancelled. For within the Office of the Secretary of Defense and the Department Staff Offices a concentrated effort was being made to reduce the number of duplicative directives and instructions and to decentralize the authority for policy implementation to the services. The pendulum is swinging back again, but the subtle and creeping realism is that the cycle is repeating itself in a compressed time continuum. In addition, these policies take some time for full implementation, and their effect on the weapon system acquisition process will not be evident for several years.

The Department of Defense responded to this fresh challenge with the issuance of Department of Defense Directive 5000.1 "Acquisition of Major Defense Systems," 13 July 1971. This policy is aimed at many facets of the weapon system acquisition process. The motherhood statement of lessons learned, particularly those of the F-111 and the C5A, is evident in this recent directive.

New policies address the need to reduce concurrency, to institute early prototyping, to begin test and evaluation earlier, and to have hardware competition (Fly Before You Buy) whenever possible. (9:1-4)

The basic thrust of Department of Defense Directive 5000.1, however, is to reduce total weapon system costs. A predominating statement of the directive is:

"Cost parameters shall be established which consider cost of

acquisition and ownership; discrete cost elements (e. g. unit production cost, operating and support cost) shall be translated into design to requirements." (9:2)

The tenaciousness of the Department of Defense to meet the objective was highlighted in speeches made by Dr. John S. Foster, Jr., then the Director of Defense Research and Engineering (DDR&E). His views were:

"... We can no longer continue to buy adequate quantities of needed weapons if the unit procurement and lifetime costs of those weapons continue to soar." (5:2)

And more recently at the Design-to-a-Cost Symposium, held in Seattle, Washington in November 1972:

"The environment is changing and so is defense. I think this is the time of change, but we haven't changed as much as we have to." (7:27)

The costs of weapon systems, with the inclusion of sophisticated, advanced technology of sub-systems, continues to increase. Technology alone does not cause the tremendous cost spiral. Other factors such as inflation, increased cost of manpower, engineering changes, etc., all contribute to the cost problem. A recent Department of Defense (Comptroller) report reflects the cost growths with the major weapon system acquisitions. A breakdown of the growth figures are as follows:

	($ Billions)	% of Adjusted Development Estimate
Engineering Changes	4.2	4.8
Support Changes	1.2	1.4
Schedule Changes	3.5	4.0

Economic Changes	4.3	5.0
Estimating Changes	4.3	5.0
Unpredicable	0.5	0.6
Other	1.8	2.1
NET INCREASE	19.8	22.8% (8:154)

A significant point to address, and which is not reflected in the cost summaries shown or the analysis, is the cost of data. It is estimated that somewhere between two (2) and four (4) billion dollars of these totals are attributed to data costs. Data costs are associated with all of the above catagories, in addition to the data costs attributable to specific requirements where no changes of any nature are apparent.

Significant strides are being made to overcome the constant problem we face with increasing data costs. The Department of Defense recently published Department of Defense Instruction 5010.29 "Acquistion of Data from Contractors" which changed policy direction to decentralize the data contracting control effort to the services and to contribute toward the reduction of the myriad of detailed policy directives and instructions issued by the Department of Defense. Department of Defense Instruction 5010.29 will also cancel the highly detailed Department of Defense Instruction 5010.12 previously mentioned. The decentralization is stated as follows:

> "Each Department of Defense component will (1) establish internal procedures designed to assure the orderly and efficient determination of requirements governing the acquisition of contractor data and the storage and distribution of such data when

acquired and (2) assist the Department of the Air Force in the development of the joint implementing document required by Section VI, below." (10:2)

The Department of Defense 5010.29 - Regulation "Data Acquisition Management Program" is in final coordination and will serve as the joint implementing document.

Mr. Donald R. Mitchell, Assistant for Technical Data Systems, Directorate for Product and Production Engineering OASD (I&L) stated in a recent article that the new directive requires the military services to:

"Buy minimum essential data using contractor's formats when possible. Provide for objective challenge of data requirements proposed for contracts. Defer ordering of data until the need is positively known and delivery until the need is at hand. Use uniform forms, procedures and data requirements among the military services. Issue a single joint regulation under Air Force leadership to supersede Department of Defense Instruction 5010.12." (2 : 31-32)

Significant progress is being made to control the contractor data acquisition process in the spirit of the design to cost philosophy. Accountability and historical cost tracking is a continuing problem. Under the current Department of Defense Cost Accounting System, data costs are not a portion of the identifiable cost breakout summaries reflected for a weapon system. A possible solution may stem from Department of Defense industry relationships through the contractual effort. The Research and Engineering Advisory Committee of the National Security Industrial Association made a recommendation to industry:

"Industry should take the initiative to work with Department of Defense customers to help search out affordable costs vs achievable performance. (6 : 19)

Failure to clearly identify data costs will restrict us in our efforts to "Design Data to a Cost" for support of the weapon acquisition process and the total design to cost philosophy.

CHAPTER IV

RELATIONSHIP OF MANAGEMENT INFORMATION SYSTEMS AND CONTRACTUAL DATA REQUIREMENTS

In consonance with the design to cost principles and increased emphasis upon controlling and reducing the data flowing from contractors, the Department of Defense issued Department of Defense Directive 5000.19 "Policies for the Management and Control of Department of Defense Information Requirements." An up to date reprint of 1 June 1973 further clarifies the requirement:

> "Its objective is to (1) assure optimum effectiveness and economy in the flow of information within, from and to the Department of Defense, and (2) prevent the generation of unauthorized or duplicative information requirements/systems by requiring that each request for information undergo an objective review and meet the criteria....(11 : 1)

The Directive encompasses the entire Department of Defense data and information flow and coupled with Department of Defense Instruction 7000.6, "Acquisition Management Systems Control," 15 March 1971 establishes the framework for management information systems.

The Authorized Management Systems list (AMSL) is a multi-service, multi-agency standardized listing of data items applicable to the contractual effort. Department of Defense Instruction 7000.6 and its companion Department of Defense Instruction 7000.7 are the instructions for applying the AMSL.

Management information systems encompass a range of data items listed in the Technical Data Manual (TD-3). The TD-3 is a function-

ally catagorized listing of the Department of Defense approved data items which can apply to a particular weapon system acquisition based upon the program manager's requirement for his program. Mention was previously made of management control systems. The following clarification is furnished:

> "Management systems are frequently mistaken for management. This mistake is most evident when people speak of management control systems - which really do not control anything. They should speak of management information systems, since these systems only provide data which someone may use to focus on items going out of control. Management information systems can also provide so much data that control is impossible because no one can thresh the mountain of material reported. Modern computer technology has solved the problem of storing and retrieving data. It is one of the few items the program manager has in long supply." (1 : 35)

From program initiation, the program manager is faced with a multiple problem to determine what overall system(s) will be required for his program. A portion of the requirement is dictated from above, such as mandatory Office of Management and Budget reporting requirements, standard or one time requirements for Congress eminating from one or both the Senate and House of Representatives, and required Department of Defense requirements relating to cost, schedule and performance.

He must first determine the management information systems required. This encompasses the widest possible range of reporting:

> "Federal reporting requirements include: (1) public reporting... (2) Interagency reporting...(3) Internal reporting... (3 : 1 &2)

The management information systems, including the maximum use of computer technology, must be moulded and tailored by the program manager and his staff to the pecularities of his program. This is a monumental

task as he will receive more advise and persuasion for inclusion of particuliar management information systems than he will need. Once this identification task is accomplished he will have to determine how it will be used to accomplish its task.

Next, within this framework, the management control systems are to be identified. This task is the one which identifies which authorized management systems will be imposed upon the contractor and identified in the contract. This effort becomes important as it forms the basis for the contractor's decisions when his sub-contracting effort commences.

Once the management control systems are identified, the magnitudinal task of identifying the particular data item descriptions, which form the basis for formal contractor reporting, must be determined.

This study is particularly concerned with program control data items and the means used by program managers to receive contractor reporting of program control information. The data items to be addressed are as follows:

	DEPARTMENT OF DEFENSE PROPONENT (AGENCY)	DATA ITEM DESCRIPTION #
Contract Performance Plan	Army	DI-A-1017
Chart, Milestone	Navy	DI-A-2007
Program Schedule	USAF	DI-A-3007
Program Milestone (Acquisition Phase)	USAF	DI-A-3009
Management and Performance Plan	USMC	DI-A-4503

The Army plan essentially calls for a schedule of events such as study, fabrication, assembly, testing, analysis, etc, estimated man-loading tables for the overall program, and projected expenditure of man-hours and funds for each month for the total program. The projected expenditure of man-hours and funds is not required for fixed-price contracts.

The Navy plan, called a chart (Milestone) asks for preparation of a chart to reflect, project identification; WBS title; WBS number; responsible individual for WBS element, his code and phone number; individual events (or major milestones), dates of each event, scheduled action date, expected date, and actual completion date; financial information, budgeted cost of work scheduled, budgeted cost of work accomplished, actual cost, actual cost over/under budgeted cost; and current date of chart. Example chart is reflected. The Navy calls this method of reporting Project Prompt.

The Air Force has two plans. One is the program schedule and is designed to portray major milestones where detailed level of reporting is not required. The milestone report consists of an optimum number of control points such as, research and development (primary) and secondary events); dates for reliability review, facilities, resources, tests, and decision points, or other scheduled items; test - category, on systems, sub-systems of the test program, date of test; production delivery - by type, model, series and date of delivery; operationally ready dates of progressively produced units; facilities requirements

both military and industrial. Abbreviated re
those items requiring attention. A sample c

The second plan is a program milestone c
quisition of the weapon. The program milesto
contractor's proposed work breakdown structur
master plans and schedules list. The system
entify which major milestones are to be repor
other government agencies and contractor deci
events will be highlighted, nomenclature will
to relate to the master and incentive schedul
to be reflected; charts will be reproducable;
critical path will be shown. The sample cha
for the program schedule report, and is attac

The Marine Corp Management and Performa
Army Plan. It calls for display of the orga
project team and of the proposed method of a
appropriate, flow charts, networks, work bre
planning, scheduling, and review/control met
cluded.

By comparing these reports, which dwell
tractor reporting, we can see that the instr
are peculiar unto themselves. The peculiari
and does allow for acceptance of contractor
needs of government reporting. But under t

we may be reflecting more flexibility in our concentration on cost, schedule and performance as the maximum parameters. Performance, even in meeting cost and schedule milestones, is a requirement that must be considered.

The Department of Defense imposes many constraints on the program manager for reporting which he does not need to manage his program. All services have the same constraints. The requirements of these program control plans should reflect the reporting in a standardized format, with flexibility to tailor the report to the requirements of the program.

CHAPTER V

PROGRAM MANAGER's TAILORING OF CONTRACTOR DATA REQUIREMENTS

Responses, to a questionnaire to selected program managers, indicated that varying degrees of tailoring contractor reporting requirements were accomplished. Colonel Fred M. Kleppsattel, USMC is Program Manager of PMA 261, the Cargo Airlift Helicopter Program for the Navy,. As previously mentioned he employed Project Prompt, "Project Reporting Organization Management and Planning Techniques." No program control data item was involved, since the SOR, "Specific Operational Requirement" included Prompt as the required reportig method. Project Prompt is actually a management information system encompassing the total project management effort. Detailed instructions are furnished for government plans and requirements, work breakdown structure, management systems requirements, management planning requirements, management systems reporting requirements, control manuals, and cost information reports. Details of each data item, including samples, are shown which deliniate how the contractor will report. This total management information system was a specific requirement of the contract. The reporting requirement was changed slightly to align with an operational decision prior to DSARC I. Project Prompt is a comprehensive reporting system, authorized by the Navy to facilitate contractor reporting.

Another approach was furnished by Captain J. T. Collins, Program Manager for the Navy's PMS 389 Program, the DD 963 Guided Missile De-

stroyer. The reporting requirements originated in the request for proposal. The data items were based upon the contractor's response to the RFP and negotiated with the Navy. These data item descriptions were created by the contractor based upon his own internal reporting systems. This included cost/schedule report, updating of the development and production plans required for validation, organization changes report, monthly progress report, network and revised network report, management information center display, Consolidated Ship Production Schedule (CSPS), and Master Manpower Schedule (MMS). The contractors response was prior to creation of the milestone chart data item and the Navy's Project Prompt System. This effort is a prime example of reporting based upon contractor generated internal reporting requirements. A significant factor was reporting connected with pert/time for scheduling which utilized the contractor's system.

Evidence of tailoring is again reflected in the Air Force approach. Colonel George L. Monahan, Program Manager for the Lightweight Fighter is a prototype effort aimed at minimizing the formal documentation reporting effort. Of the two contracts a total of seventeen (17) CDRL items were cited. Seven (7) are common to both contracts and half of the data items were applied exactly as proposed by the contractors using contractors formats. He also states that the use of contractor in house reports and publications enhanced direct visability and increased the ability to manage the program on a real time, continuing basis.

Brigadier General Jerry S. Laver, Program Manager for the Army's Heavy Lift Helicopter Program took a very austere approach. In lieu of the contract performance plan, only two (2) data items were applied; DI-A-1005, Progress/Status Meeting Report and DI-S-1800, Technical Report. The former reports on significant contract performance as it occurs, and the latter is utilized as a quarterly technical review at which time the contractor performance is measured and analyzed. He did think some of the program control data items could be consolidated, particularly DI-A-2007 and DI-A-3009, used for Milestone reporting.

Still another approach was taken by Colonel John P. Dobbins, Project Manager for the Army's Tactical Communications System. He cited the data items used on a Tri-Service Development, the AN-TTC-39, which reflects the requirements of all the services. The data items pertaining to the program control effort encompass, Program/Status/Meeting Reports, Agendas/Reviews/Audits, Contract Fund Status Rhport, Configuration Management Plan, Configuration Status Accounting and Engineering Records, and Technical Reports - Life Cycle Cost (LCC) Program-Task. Although the Contract Performance Plan data item was not cited per se, this was a highly structured formal reporting requirement. And these reports closely parallel the Navy's Project "Prompt" reporting system. Colonel Dobbins felt that reporting on all of the management control requirements in one data item, using the Program Control Milestone Reporting, would not satisfy a program of this magnitude. He also suggested that a more comprehensive study be conducted on the total CDRL contracting effort.

Captain H. A. Hoffman, Program Manager for PMS 396, the Navy's Trident Submarine, stated that he used the Cost Performance Report, Contract Funds Status Report and a Unique Data Item, Report of Contract Status as the Milestone Report was not available when the RPF was prepared. But it could have applied. Some of the data called for by the Report of Contract Status was also covered in the financial reporting requirements.

Colonel L. A. Skantze, the Air Force's AWACS Program Manager, indicated that they utilized the Program Schedule but completely tailored it for his program. He also indicated that the plan could have been tailored for AWACS. Much of the tailoring was to take advantage of Contractor Program Management Output Documentation.

Brigadier General G. E. Turnmeyer and Mr. Hubert Speck of the Army's IANCE Program, state that they are now in the later production phases of the program and they receive their program status reporting as part of their Cost Report. This is mainly to track production deliveries.

Colonel R. P. Gingland, the Assistant Deputy for the Air Force's Minuteman SPO indicates that the SPO acts as integrator over multiple contracts connected with the program. The Program Schedule was used on all contracts and was tailored to suit the peculiarities of each. One interesting response was a proposed modification to reflect a five year status graphically by month. This type of data may assist in aligning with the five year Defense Program.

Due to the time constraints placed upon this study, a more comprehensive comparison analysis was not possible. The authors recommend further research in this area.

Evidence, from Program Manager inputs, indicate a high degree of tailoring effort. Under the current concepts of design to cost we can expect to see even more fine tuning of the data requirements for contractor reporting. The three major areas of cost, schedule, and performance will become management information sub-systems unto themselves, and the Program Manager's careful selection of a total program management information system, to coordinate and control the three prime areas of interest, will allow for the use of a comprehensive, but highly tailored, reporting system to respond to today's environment.

CHAPTER VI

SUMMARY

The emphasis on Data Management and contractor reporting in particular, gained momentum in the early 1960's. This was a comprehensive effort to improve the management, data and information reporting systems to keep pace with changing technology. We have traversed through periods of centralized and decentralized control within the entire Department of Defense structure. The proliferation of directives and instructions, to counter the dearth of information on which to base decisions, has over the years proved counter productive. The almost geometric cost increases in acquiring new weapons, has caused a critical reexamination of the total weapons systems acquisition process.

A comparison of the program control data items reveals that considerable duplication of reporting requirements exists, there is duplicative requirements for reflection of major program milestones, time scheduling of events, and reporting of those events (including status) as of the report date. In addition, the normal identification data such as the contractor's name, address, industry code, contract number, etc., was duplicated throughout all data items. Many of the unique requirements, such as cost and financial data, were also required in other data requirements. So if the duplication did not exist among the management control reports of the individual services, the required data, in many cases, was

being reported in other data items.

A summary analysis, of the Program Managers' responses to the questionnaire, reveals that the required reporting, was - every case - tailored to the particular program. We cannot completely standardize these reporting requirements, but we can remove the redundancy reporting data which is duplicated in other required reports, particularly the cost and financial data.

The major requirement, then, is to remove all cost and financial reporting from the, Milestone, Schedule, and Management Performance, reporting effort. This, in turn, will furnish the Program Manager the kind of compact, concise, data for program control and tracking of major program milestones.

With the advent of the "Design to Cost" philosophy we now must perform a critical in-depth look at our contractor reporting requirements and completely tailor our Management Information Systems. What is needed in this new environment, is a system to gather and analyze historical data costs, in order to answer the question of "Should Cost". With this "Should Cost" information on data we may be able to "Design to a Data Cost" which in turn can support the current "Design to Cost" philosophy.

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DEFENSE SYSTEMS MANAGEMENT SCHOOL

STUDY TITLE: SELECTED PROGRAM CONTROL CONTRACTOR GENERATED REPORTS AN EXAMINATION AND EVALUATION.

STUDY PROBLEM/QUESTION: To examine the construction, application, reporting and uses of contractor prepared Program Control Reports to determine possible areas of consolidation, standardization and reduction of unnecessary reporting.

STUDY REPORT ABSTRACT:

The Department of Defense formal contractor reporting requirements, for Program Assessment, are deliniated on the Contrast Data Requirements List (DD Form 1423). These requirements are determined by the Program Manager and his organizational components using Department of Defense Directives and Instructions, and the Department of Defense Authorized Data List, TD-3. This study is an examination and evaluation of five selected plans, Milestones, and Schedules applicable to selected Department of Defense major Acquisition Programs. Selected Program Manager Questionnaire responses are also included to assess the current use of the Program Control Data Items.

KEY WORDS: MATERIEL ACQUISITION CONTRACTOR DATA REPORTS AND REPORTING INFORMATION SYSTEMS DESIGN-TO-COST SHOULD COST DATA COLLECTION

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Student, Rank Service	Class	Date
FRANCIS A. GRIDLEY, GS-11 DAFC	PMC 73-2	19 November 1973

ready dates of progressively produced units; facilities requirements

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